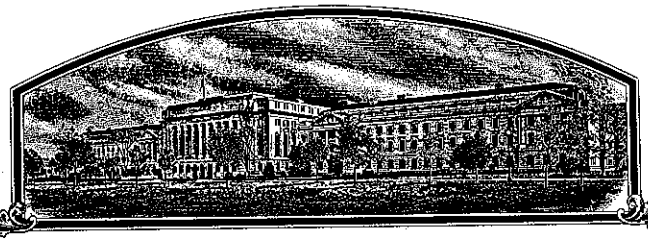


No. 9000151

# THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

## Asgrow Seed Company

Whereas, THERE HAS BEEN PRESENTED TO THE

**Secretary of Agriculture**

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF eighteen YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

SOYBEAN

'A7258'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this 31st day of January in the year of our Lord one thousand nine hundred and ninety-two.

Attest:

Kenneth A. Evans
Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Edward Madigan
Secretary of Agriculture

FORM APPROVED: OMB 0581-0055, Expires 1/31/91

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

# APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

*(Instructions on reverse)*

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S) *(as it is to appear on the Certificate)*
ASGROW SEED COMPANY

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NO.
XP7258

3. VARIETY NAME
A7258

4. ADDRESS *(street and no. or R.F.D. no., city, state, and ZIP)*
9652-190-18
KALAMAZOO, MI 49001

5. PHONE *(Include area code)*
616-384-2353

**FOR OFFICIAL USE ONLY**

PVPO NUMBER
9000151

FILING
Date: April 17, 1990
Time: ☐ A.M. ☐ P.M.

FEES RECEIVED
Filing and Examination Fee: $ 2150.00
Date: Apr. 9, 1990
Certificate Fee: $ 250.00
Date: Dec. 27, 1991

6. GENUS AND SPECIES NAME
Glycine max

7. FAMILY NAME *(Botanical)*
Leguminosae

8. CROP KIND NAME *(Common Name)*
Soybean

9. DATE OF DETERMINATION
November, 1986

10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION *(Corporation, partnership, association, etc.)*
Corporation

11. IF INCORPORATED, GIVE STATE OF INCORPORATION
Delaware

12. DATE OF INCORPORATION

13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS
~~Mr. Steve Hawkins~~
~~9638-190-23~~
~~Asgrow Seed Company~~
~~Kalamazoo, MI 49001~~
Dr. Gary Starwalt 9646-190-20 28 January 1992
7000 Portage Rd.
Kalamazoo, MI 49001
PHONE *(Include area code)*: 616-385-6649 ~~616-384-2353~~

14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED *(Follow INSTRUCTIONS on reverse)*
- a. ☒ Exhibit A, Origin and Breeding History of the Variety.
- b. ☒ Exhibit B, Novelty Statement.
- c. ☒ Exhibit C, Objective Description of Variety.
- d. ☒ Exhibit D, Additional Description of Variety.
- e. ☒ Exhibit E, Statement of the Basis of Applicant's Ownership.
- f. ☐ Seed Sample (2,500 viable untreated seeds). Date Seed Sample mailed to Plant Variety Protection Office _____.
- g. ☒ Filing and Examination Fee ($2,150) made payable to "Treasurer of the United States."

15. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? *(See section 83(a) of the Plant Variety Protection Act.)*
☐ YES *(If "YES," answer items 16 and 17 below)* ☒ NO *(If "NO," skip to item 18 below)*

16. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?
☐ YES ☒ NO

17. IF "YES" TO ITEM 16, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?
☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED

18. DID THE APPLICANT(S) PREVIOUSLY FILE FOR PROTECTION OF THE VARIETY IN THE U.S.?
☐ YES *(If "YES," through* ☐ Plant Variety Protection Act ☐ Patent Act. Give date: _____.)
☒ NO

19. HAS THE VARIETY BEEN RELEASED, USED, OFFERED FOR SALE, OR MARKETED IN THE U.S. OR OTHER COUNTRIES?
☒ YES (If "YES," give names of countries and dates) April - June, 1990 28 November 1991
☐ NO

11-25-91

20. The applicant(s) declare(s) that a viable sample of basic seeds of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable.

The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in section 41, and is entitled to protection under the provisions of section 42 of the Plant Variety Protection Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

| SIGNATURE OF APPLICANT *(Owner(s))* | CAPACITY OR TITLE | DATE |
|---|---|---|
| | SOYBEAN PRODUCT MANAGER | 3/27/90 |
| SIGNATURE OF APPLICANT *(Owner(s))* | CAPACITY OR TITLE | DATE |
| | | |

Soybean A7258
U.S. Plant Variety Protection Applicant
Asgrow Seed Company

EXHIBIT A
ORIGIN AND BREEDING HISTORY

| | |
|---|---|
| SUMMER 1979 | Original cross made at Caruthersville, MO<br>Cross number was M79843<br>Parentage = R74-1625 * Co77-188<br>R74-1625 = York * Davis<br>Co77-188 = Hampton 266 * Bragg |
| Winter 1979-80 | F1 plants grown in Belize, Central America in lighted hills. |
| Summer 1980 | F2 advanced to F3 by modified single seed descent at Marion, AR. |
| Winter 1980-81 | F3 advanced to F4 by modified single seed descent in Belize, Central America. |
| Summer 1981 | F4 bulk population of M79843 grown at Marion, Ar with 200 single plants selected. |
| Summer 1982 | F5 progeny rows of M79843 were grown at Marion, Ar. Row M82-07458 was selected and composited. |
| Summer 1983 | M82-07458 was yield tested at two locations, two replications each. Screened to race 4 of soybean cyst nematode and found to be susceptible. Tested as entry 39 in the P654 test. |
| Summer 1984 | Yield tested at 8 locations as entry 10 in test S642. |
| Summer 1985 | Yield tested at 7 locations in the Mid-South and North Carolina as entry 9 in test V650. Forty-eight F8 plants selected from V650-9 to begin breeder seed purification. |
| Summer 1986 | Yield tested at 10 locations as entry 14 in the V650 test. The 40 single plants were grown in 9 ft. rows with 14 selected for uniformity of maturity, height and white flowers. Entry 14 named XP7258. |
| Winter 1986-87 | Six pounds of XP7258 increased to 60 lbs. in Puerto Rico. |
| Summer 1987 | Yield tested as entry 20 in V750 at 8 locations. Breeder Seed increased at Marion, AR from the Puerto Rico increase and 600 lbs. of XP7258 produced. |
| Summer 1988 | XP7258 yield tested as entry 4 in V750 test at 7 locations. Breeder seed increased at Matthews, MO to 200 units of basic I seed. |

9000151

Exhibit A (Continued)

XP7258 was nominated for release and full production and assigned the designation A7258.

Summer 1989 A7258 yield tested as entry 1 in V750 test at four locations.

Foundation seed of A7258 was produced via Mathews, Missouri production plant.

A7258 is uniform and stable within commercially acceptable limits based on trial observations since pure rows were bulked in November 1986. As with other soybean varieties, variants can occur for almost any characteristic during the course of repeated sexual reproduction.

D:\AKW\SCHLEGAL.N25

9000151

Soybean A7258
U.S. Plant Variety Protection Applicant
Asgrow Seed Company

EXHIBIT B
NOVELTY STATEMENT

To our knowledge, A7258 most nearly resembles Braxton, Tracy, P9691, and P9791. Differences include, but are not necessarily restricted to the following:

A7258 has grey pubescence and buff hila compared to P9691 and Tracy which have tawny pubescence and black hila. A7258 matures later (maturity Group VII) than P9691 and Tracy (maturity Group VI).

A7258 has white flowers, grey pubescence, and is susceptible to common root knot nematode (Meloidogyne incognita) whereas Braxton has purple flowers, tawny pubescence, and has resistance to common root knot nemetode.

A7258 averages 5 days earlier in maturity and 20 cm taller than P9791. The seed coat peroxidase activity of A7258 is low while seed coat peroxidase activity of P9791 is high.

FORM APPROVED: OMB NO. 0581-0055

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, MEAT, GRAIN & SEED DIVISION
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MARYLAND 20705

EXHIBIT C
*(Soybean)*

9000151

# OBJECTIVE DESCRIPTION OF VARIETY
## *SOYBEAN (Glycine max* L.)

| NAME OF APPLICANT(S) | TEMPORARY DESIGNATION | VARIETY NAME |
|---|---|---|
| ASGROW SEED COMPANY | XP7258 | A7258 |

ADDRESS *(Street and No., or R.F.D. No., City, State, and Zip Code)*

9638-190-23
Kalamazoo, MI 49001 616-384-2353

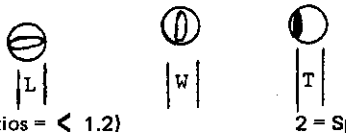
**FOR OFFICIAL USE ONLY**

PVPO NUMBER

Choose the appropriate response which characterizes the variety in the features described below. When the number of significant digits in your answer is fewer than the number of boxes provided, place a zero in the first box when number is 9 or less (e.g., [0][9]).

**1. SEED SHAPE:**

[2]




1 = Spherical (L/W, L/T, and T/W ratios = < 1.2)
2 = Spherical Flattened (L/W ratio > 1.2; L/T ratio = < 1.2)
3 = Elongate (L/T ratio > 1.2; T/W = < 1.2)
4 = Elongate Flattened (L/T ratio > 1.2; T/W > 1.2)

**2. SEED COAT COLOR: (Mature Seed)**

[1] 1 = Yellow 2 = Green 3 = Brown 4 = Black 5 = Other *(Specify)* _____

**3. SEED COAT LUSTER: (Mature Hand Shelled Seed)**

[1] 1 = Dull ('Corsoy 79'; 'Braxton') 2 = Shiny ('Nebsoy'; 'Gasoy 17')

**4. SEED SIZE: (Mature Seed)**

[1][5] Grams per 100 seeds

**5. HILUM COLOR: (Mature Seed)**

[1] 1 = Buff 2 = Yellow 3 = Brown 4 = Gray 5 = Imperfect Black 6 = Black 7 = Other *(Specify)* _____

**6. COTYLEDON COLOR: (Mature Seed)**

[1] 1 = Yellow 2 = Green

**7. SEED PROTEIN PEROXIDASE ACTIVITY:**

[1] 1 = Low 2 = High

**8. SEED PROTEIN ELECTROPHORETIC BAND:**

[ ] 1 = Type A ($SP1^a$) 2 = Type B ($SP1^b$)

**9. HYPOCOTYL COLOR:**

[1] 1 = Green only ('Evans'; 'Davis') 2 = Green with bronze band below cotyledons ('Woodworth'; 'Tracy')
3 = Light Purple below cotyledons ('Beeson'; 'Pickett 71')
4 = Dark Purple extending to unifoliate leaves ('Hodgson'; 'Coker Hampton 266A')

**10. LEAFLET SHAPE:**

[3] 1 = Lanceolate 2 = Oval 3 = Ovate 4 = Other *(Specify)* _____

5

**11. LEAFLET SIZE:**

[2] 1 = Small ('Amsoy 71'; 'A5312') 2 = Medium ('Corsoy 79'; 'Gasoy 17')
3 = Large ('Crawford'; 'Tracy')

**12. LEAF COLOR:**

[3] 1 = Light Green ('Weber'; 'York') 2 = Medium Green ('Corsoy 79'; 'Braxton')
3 = Dark Green ('Gnome'; 'Tracy')

**13. FLOWER COLOR:**

[1] 1 = White 2 = Purple 3 = White with purple throat

**14. POD COLOR:**

[2] 1 = Tan 2 = Brown 3 = Black

**15. PLANT PUBESCENCE COLOR:**

[1] 1 = Gray 2 = Brown (Tawny)

**16. PLANT TYPES:**

[2] 1 = Slender ('Essex'; 'Amsoy 71') 2 = Intermediate ('Amcor'; 'Braxton')
3 = Bushy ('Gnome'; 'Govan')

**17. PLANT HABIT:**

[1] 1 = Determinate ('Gnome'; 'Braxton') 2 = Semi-Determinate ('Will')
3 = Indeterminate ('Nebsoy'; 'Improved Pelican')

**18. MATURITY GROUP:**

[1][0] 1 = 000 2 = 00 3 = 0 4 = I 5 = II 6 = III 7 = IV 8 = V
9 = VI 10 = VII 11 = VIII 12 = IX 13 = X

**19. DISEASE REACTION: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)**

BACTERIAL DISEASES:

[2] Bacterial Pustule *(Xanthomonas phaseoli* var. *sojensis)*

[0] Bacterial Blight *(Pseudomonas glycinea)*

[0] Wildfire *(Pseudomonas tabaci)*

FUNGAL DISEASES:

[0] Brown Spot *(Septoria glycines)*

Frogeye Leaf Spot *(Cercospora sojina)*

[0] Race 1 [ ] Race 2 [ ] Race 3 [ ] Race 4 [ ] Race 5 [ ] Other *(Specify)*

[0] Target Spot *(Corynespora cassiicola)*

[0] Downy Mildew *(Peronospora trifoliorum* var. *manshurica)*

[0] Powdery Mildew *(Microsphaera diffusa)*

[0] Brown Stem Rot *(Cephalosporium gregatum)*

[2] Stem Canker *(Diaporthe phaseolorum* var. *caulivora)*

**19. DISEASE REACTION: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant) (Continued)**

FUNGAL DISEASES: (Continued)

[0] Pod and Stem Blight *(Diaporthe phaseolorum* var; *sojae)*

[0] Purple Seed Stain *(Cercospora kikuchii)*

[0] Rhizoctonia Root Rot *(Rhizoctonia solani)*

Phytophthora Rot *(Phytophthora megasperma* var. *sojae)*

[2] Race 1 [2] Race 2 [2] Race 3 [2] Race 4 [2] Race 5 [0] Race 6 [1] Race 7

[1] Race 8 [2] Race 9 [ ] Other *(Specify)* _____

VIRAL DISEASES:

[0] Bud Blight (Tobacco Ringspot Virus)

[0] Yellow Mosaic (Bean Yellow Mosaic Virus)

[0] Cowpea Mosaic (Cowpea Chlorotic Virus)

[0] Pod Mottle (Bean Pod Mottle Virus)

[0] Seed Mottle (Soybean Mosaic Virus)

NEMATODE DISEASES:

Soybean Cyst Nematode *(Heterodera glycines)*

[0] Race 1 [0] Race 2 [1] Race 3 [1] Race 4 [ ] Other *(Specify)* _____

[0] Lance Nematode *(Hoplolaimus Colombus)*

[1] Southern Root Knot Nematode *(Meloidogyne incognita)*

[0] Northern Root Knot Nematode *(Meloidogyne Hapla)*

[1] Peanut Root Knot Nematode *(Meloidogyne arenaria)*

[0] Reniform Nematode *(Rotylenchulus reniformis)*

[1] OTHER DISEASE NOT ON FORM *(Specify):* Aerial Blight (Rhizoctonia solani)

**20. PHYSIOLOGICAL RESPONSES: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)**

[0] Iron Chlorosis on Calcareous Soil

[ ] Other *(Specify)* _____

**21. INSECT REACTION: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)**

[0] Mexican Bean Beetle *(Epilachna varivestis)*

[0] Potato Leaf Hopper *(Empoasca fabae)*

[ ] Other *(Specify)* _____

**22. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED.**

| CHARACTER | NAME OF VARIETY | CHARACTER | NAME OF VARIETY |
|---|---|---|---|
| Plant Shape | Braxton | Seed Coat Luster | Braxton |
| Leaf Shape | Braxton | Seed Size | Braxton |
| Leaf Color | Tracy | Seed Shape | Braxton |
| Leaf Size | P9691 | Seedling Pigmentation | P9791 |
| | | | |



7

**23. GIVE DATA FOR SUBMITTED AND SIMILAR STANDARD VARIETY: Paired Comparison Data**

| VARIETY | NO. OF DAYS MATURITY | PLANT LODGING SCORE | CM PLANT HEIGHT | LEAFLET SIZE | | SEED CONTENT | | SEED SIZE G/100 SEEDS | NO. SEEDS/ POD |
|---|---|---|---|---|---|---|---|---|---|
| | | | | CM Width | CM Length | % Protein | % Oil | | |
| Submitted | 160 | 2.8 | 109 | 7.09 | 11.10 | 43.2 | 21.6 | 15.4 | |
| Name of Similar Variety | 163 | 2.5 | 102 | 6.05 | 9.84 | 44.4 | 20.4 | 16.2 | |

**PUBLICATIONS USEFUL AS REFERENCE AIDS FOR COMPLETING THIS FORM:**


1. Caldwell, B.E., ed. 1973. Soybeans: Improvement, Production, and Uses. Amer. Soc. Agron. Monograph No. 16.
2. Buttery, B.R. and R.I. Buzzell. 1968. Peroxidase activity in seeds of soybean varieties. Crop Sci., 8: 722-725.
3. Hymowitz, T. 1973. Electrophoretic analysis of SBTI-$A_2$ in the USDA soybean germplasm collection. Crop Sci., 13: 420-421.
4. Payne, R.C. and L.F. Morris. 1976. Differentiation of soybean cultivars by seedling pigmentation patterns. J. Seed Technol. 1: 1-19.

Soybean A7258
U.S. Plant Variety Protection Applicant
Asgrow Seed Company

EXHIBIT D
ADDITIONAL DESCRIPTION OF THE VARIETY

A7258 is an early Group VII that has excellent emergence and resistance to many races of Phytophthora root rot. The tall plants with dark green foliage show good resistance to stem canker and frogeye leaf spot. Yield potential is greatest on heavy clay soils.

9000151

Soybean A7258
U.S. Plant Variety Protection Applicant
Asgrow Seed Company

EXHIBIT E
STATEMENT OF THE BASIS of APPLICANT'S OWNERSHIP

A7258 was originated and developed by James G. Shannon, PhD, an Asgrow plant breeder. By agreement between employee and Asgrow Seed Company, all rights to any invention, discovery, or development made by an employee are assigned to the Company. No rights to such invention, discovery, or development are retained by the employee.